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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/722,440	11/28/2000	Piero Pollesello	1102.0250003/JMC	5322

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EXAMINER

KAM, CHIH MIN

ART UNIT PAPER NUMBER

1653

DATE MAILED: 08/13/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/722,440

Applicant(s)

POLLESELLO ET AL.-

Examiner

Chih-Min Kam

Art Unit

1653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 9, 11, 12 and 20-33 is/are pending in the application.
- 4a) Of the above claim(s) 33 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9, 11 and 12 is/are allowed.
- 6) ☒ Claim(s) 20-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Status of the Claims*

1. Claims 9, 11, 12 and 20-33 are pending.

Applicants' amendment filed May 19, 2003 (Paper No. 15) is acknowledged.

Applicants' response has been fully considered. Claims 20, 23-29 and 31 have been amended, and claim 33 is withdrawn from consideration as being directed to a nonelected invention.

Therefore, claims 9, 11, 12 and 20-32 are examined.

### Rejection Withdrawn

#### *Claim Rejections - 35 USC § 112*

2. The previous rejection of claims 20-32, under 35 U.S.C. 112, second paragraph, regarding the term "the ligand-binding site of the phospholamban cytosolic domain or portion of", "possesses good steric and electrostatic complementarity with the ligand binding site", "interacts favorably with the ligand binding site" or "derived from", is withdrawn in view of applicants' amendment of the claim, and applicants' response at pages 8-10 in Paper No. 15.

#### *Claim Rejections-Obviousness Type Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 20-32 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11-20 and 22-41 of copending application No. 09/722,497. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 20-32 in the instant application discloses a method of identifying or designing a phospholamban deactivator, or a method of identifying a target area on the surface of phospholamban where the phospholamban deactivator binds, by computer modeling of the complex of the cyclic peptide (SEQ ID NO:8) and phospholamban cytosolic domain. This is obvious in view of claims 11-20 and 22-41 of copending application which discloses a method of identifying or designing a phospholamban deactivator by computer modeling of the complex of an unspecified candidate molecule and phospholamban cytosolic domain. Thus, claims 20-32 in present application and claims 11-20 and 22-41 of copending application are obvious variations of a method of identifying or designing a phospholamban deactivator by computer modeling of the complex of a candidate molecule and phospholamban cytosolic domain.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

In response, applicants indicate an appropriate Terminal Disclaimer will be submitted upon a finding of allowability of claims 20-32. The comment is unpersuasive. The ground of rejection remains, no allowable material can be indicated when a ground of rejection remains.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 20-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claims 20-32 are indefinite because of the use of the term "ligand-binding portion of the phospholamban cytosolic domain" or "computationally binds". The term cited above renders the claim indefinite, it is not clear what amino acid sequence the ligand-binding portion of the phospholamban cytosolic domain has, and whether the ligand-binding portion is the same as the ligand-binding site; and what does the term "computationally binds" mean. Claims 21-30 and 32 are included in this rejection for being dependent on a rejected claim and not correcting the deficiency of the claim from which they depend.

In response, applicants indicate the specification discloses phospholamban fragment is SEQ ID NO:9 with 36 amino acids, which comprises the cytosolic domain and 6 amino acids of the transmembrane domain (page 4, last paragraph), the ligand binding sites such as S1, S2, S3 and S4 have been also characterized in the binding of the cyclic peptide to phospholamban (pages 5-8); and claims 20, 25 and 31 have been amended to describe the features of the ligand binding sites and the ligand-binding portion (pages 8-10 of the response). The argument is not persuasive because the claim does not identify the ligand-binding portion in the phospholamban cytosolic domain, it is not clear what part of phospholamban cytosolic domain is the ligand-binding portion, and whether the ligand-binding portion is the same as the ligand binding sites as indicated in the section above.

*Conclusion*

6. Claims 20-32 are rejected, it appears that claims 9, 11 and 12 are free of art and allowable.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Min Kam whose telephone number is (703) 308-9437. The examiner can normally be reached on 8.00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low, Ph. D. can be reached on (703) 308-2923. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-0294 for regular communications and (703) 308-4227 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Chih-Min Kam, Ph. D. *CMK*  
Patent Examiner

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August 11, 2003

*Christopher S. Low*  
CHRISTOPHER S. LOW  
SUPERVISORY PATENT EXAMINER  
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